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ARIZONA STATE UNIVERSITY ■ COLLEGE OF BUSINESS
CENTER FOR BUSINESS RESEARCH

Quarterly Economic Forecast Update

Growth To Stay Modest in '88, Weaken in '89

Economic growth in Arizona and the Phoenix metropolitan area should continue to be modest in 1988, and conditions may even improve in some sectors. By 1989, the Economic Outlook Center (EOC) expects the economy to weaken, and sufficient uncertainty exists to raise the prospect of a recession. The EOC predicts feeble growth – by Arizona standards – but concludes a downturn may not develop before the decade is over.

Unprecedented levels of uncertainty (at least during the last several years) currently plague analysts of recent economic statistics. The U.S. Index of Leading Economic Indicators dropped in January; however, upward revisions to previously released data muddied the picture. The chaotic events endured by global financial markets several months ago will continue to raise havoc with economic statistics for several months to come.

The same is true for Arizona's statistics. The January increase in Arizona's leading index (see page 15) followed two months of steep declines, sending mixed signals regarding the path of the state economy. In Maricopa County, multifamily building permits, having surged late last year, plummeted in January to virtually zero.

THE NATIONAL ECONOMY

A recent membership survey conducted by the National Association of Business Economists yielded unsettling news. An overwhelming majority of the respondents predicted the nation's next recession will begin in 1989. While NABE's forecasting track record is no less dubious than most, this prediction is a departure from previous surveys that suggested a recession is at least two years away.

The business economists are not alone, nor is their pessimism unfounded. The latest statistical news on the U.S. economy portrays a nation on the cusp between renewed expansion and a pronounced business slump. The good news/bad news scenario is implicit in the fourth quarter 1987 economic statistics.

GNP expanded at a 4.5 percent annual rate during the quarter, a robust performance by any standard, but disturbing trends were evident in some categories. Consumer spending fell more than 3 percent from the prior quarter. Since it is widely believed the durability of the current expansion is due mostly to strong consumption, many analysts see the

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decline as a harbinger of more bad news down the road.

Additional concern stems from the apparent strength of the composite GNP figure, which derived primarily from a surge in business inventories. This increase can be interpreted in two ways. Either U.S. producers are bullish about their prospects for increased sales, or goods are piling up because production surpassed expected sales, foreshadowing cutbacks in employment and output later this year.

Facts and figures related to the trade deficit are another mixed bag with which economic prognosticators must contend. Exports finally surged last year in response to the sustained fall in the dollar's exchange value. Nevertheless, the huge volume of U.S. imports caused the real trade deficit to persist at an annual rate well in excess of $100 billion.

Even the news on inflation was ambivalent. The U.S. CPI for January increased 0.3 percent for the month, comparable to the annual average inflation rate of 3.7 percent for 1987. However, the January increase was suppressed by a dive in gasoline and fuel prices, disguising advances in other consumption categories that may become more apparent later this year

TABLE 1
1988 AND 1989 ECONOMIC FORECASTS: UNITED STATES

	Actual 1987	Forecast 1988	Forecast 1989
Gross National Product			
Millions of 1982 Dollars	3,819.6	3,903.6	3,985.6
Percent Change	2.9	2.2	2.1
Industrial Production			
Percent Change	3.8	3.2	2.8
Net Exports			
Billions of 1982 Dollars	–134.3	–105.7	–82.3
Housing Starts			
Number in Millions	1.62	1.55	1.52
Percent Change	–10.5	–4.3	–1.9
Unemployment Rate			
Percent	6.2	6.1	6.2
Consumer Price Index			
Percent Change	3.7	4.0	4.6
Three-Month Treasury Bill Rate			
Percent	5.8	5.9	6.4
Aaa Corporate Bond Rate			
Percent	9.4	9.7	9.9

TABLE 2
1988 AND 1989 ECONOMIC FORECASTS: ARIZONA

	Estimated 1987	Forecast 1988	Forecast 1989
Gross State Product			
Millions of 1982 Dollars	48,140	50,495	52,570
Percent Change	4.6	4.9	4.1
Personal Income			
Millions of Current Dollars	47,872	51,498	54,795
Percent Change	7.1	7.6	6.4
Retail Sales			
Millions of Current Dollars	18,001	18,942	19,895
Percent Change	4.7	5.2	5.0
Unemployment Rate			
Percent	6.3	6.5	7.0
Wage and Salary Employment			
Number in Thousands	1,383.7	1,430.2	1,467.0
Percent Change	3.4	3.4	2.6
Population			
Number in Thousands	3,405	3,489	3,574
Percent Change	3.1	2.5	2.4
Single-Family Units Permitted			
Number	27,360	23,675	20,760
Percent Change	–19.7	–13.5	–12.3
Multifamily Units Permitted[1]			
Number	12,038	8,820	6,850
Percent Change	–55.4	–26.7	–22.3

[1]Apartment complexes of three or more units

Source (Tables 1 and 2): Economic Outlook Center, College of Business, Arizona State University

THE U.S. OUTLOOK

The Economic Outlook Center's forecast for the U.S. economy is summarized in Table 1. The forecast assumes the current orthodox view that, while consumption spending and home building will slow during 1988, expanding exports, production, profits and business investment will keep the economy moving forward. Interest rates, generally falling since the October stock market crash, are expected to begin a gradual upward trend that should continue for the duration of the forecast period.

Real GNP growth is projected to average 2.2 percent in 1988 and 2.1 percent in 1989. After a period of relative softness in the first half of 1988, the U.S. economy is expected to rally as exports improve and business investment grows. By 1989, rising interest rates should combine with reduced consumption and home building to brake the economy's momentum.

While most consumer prices are anticipated to rise at an annual rate approaching 5 percent this year and next, the global glut of crude oil is exerting enough downward pressure on fuel prices to keep the projected rate of inflation at 4 percent in 1988 and 4.6 percent in 1989.

1988-1989 ARIZONA FORECAST

1987 was not a good year for the Arizona economy. Employment advanced just 3.4 percent statewide, the weakest performance since the state lost 1.1 percent of its jobs during the recession year 1982. Personal income grew at an annual rate of about 6 percent through the third quarter, down from the 9.3 percent increase registered in 1986. Retail sales climbed only 4.7 percent during the year, a surprisingly weak per-

formance that barely exceeded the rate of inflation.

The Economic Outlook Center's forecasts for Arizona and Maricopa County, summarized in Tables 2 and 3, envision the next two years as a time of slow growth. Home building is expected to continue its decline. Other measures, such as employment, income and retail sales, also should fall short of the state's statistical record of the last five years.

TABLE 3
1988 AND 1989 ECONOMIC FORECASTS: MARICOPA COUNTY

	Estimated *1987*	Forecast *1988*	Forecast *1989*
Consumer Price Index			
Percent Change	4.1	4.6	5.1
Retail Sales			
Millions of Current Dollars	11,743	12,321	12,885
Percent Change	3.5	4.9	4.6
Unemployment Rate			
Percent	5.2	5.5	6.1
Wage and Salary Employment			
Number in Thousands	912.7	945.2	972.5
Percent Change	3.4	3.6	2.9
Population			
Number in Thousands	1,970	2,022	2,072
Percent Change	3.6	2.6	2.5
Single-Family Units Permitted			
Number	18,012	15,650	13,870
Percent Change	–24.5	–13.1	–11.4
Multifamily Units Permitted[1]			
Number	9,106	6,820	5,350
Percent Change	–50.3	–25.1	–21.6

[1]Apartment complexes of three or more units

TABLE 4
ARIZONA EMPLOYMENT FORECASTS
FOR 1988-1989 (thousands)

	1987	Percent Change	1988	Percent Change	1989	Percent Change
Manufacturing	187.2	1.4	189.6	1.3	189.8	0.1
Mining	11.4	3.6	11.7	2.6	11.5	–1.7
Construction	102.4	–9.5	95.6	–6.6	92.9	–2.8
TCPU*	72.0	9.3	75.6	5.0	78.1	3.3
Trade	339.5	4.3	356.1	4.9	368.2	3.4
FIRE**	94.4	6.2	96.7	2.4	99.6	3.0
Services	343.9	6.2	356.4	6.3	381.4	4.4
Government	232.9	3.5	239.5	2.8	245.5	2.5
Total Wage and Salary Employment	1,383.7	3.4	1,430.2	3.4	1,467.0	2.6
Total Employment	1,513.0	3.4	1,563.0	3.3	1,605.0	2.7
Total Unemployment	101.0	–7.3	109.0	7.9	120.0	10.1
Labor Force	1,614.0	2.7	1,672.0	3.6	1,725.0	3.2
Unemployment Rate	6.3		6.5		7.0	

*Transportation, Communications and Public Utilities

**Finance, Insurance and Real Estate

Source (Tables 3 and 4): Economic Outlook Center, College of Business, Arizona State University

EMPLOYMENT

With the most construction-intensive economy in the United States, Arizona is in the throes of a "correction," precipitated by overbuilding, that will last into the 1990s. Following a plunge of 9.5 percent in 1987, construction jobs are projected to shrink an additional 6.6 percent in 1988 and 2.8 percent in 1989 (see Table 4).

Manufacturing employment throughout much of the nation has expanded concurrently with industrial production as foreign demand for American goods has accelerated. Arizona manufacturing firms have not responded in similar fashion for a number of reasons. First, many industries responsible for the nation's rising industrial output produce commodities such as lumber, paper, fiberboard, chemicals, plastics, resins, pharmaceuticals and other goods that Arizona simply does not produce in significant quantities. Next, many of the state's industrial firms are defense contractors that 1) are not making products for export and 2) are not expanding due to the shrinking defense procurement budget. Finally, of those firms producing electronic equipment for private markets, many make components for mainframe computer systems that are not the focus of current industry expansion. Others have not maintained their existing market shares or exported production jobs to offshore facilities earlier in the business cycle when the dollar was much stronger. Still others have been involved in mergers, acquisitions and corporate restructuring that tend to limit growth in payrolls.

The EOC projects manufacturing employment in the state to grow 1.3 percent in 1988 and 0.1 percent in 1989, somewhat less than the 1.7 percent and 1.4 percent gains posted in 1986 and 1987, respectively.

Conversely, the service-providing sector should continue expanding with relative alacrity. Turmoil in financial services will cause banks and brokerage houses to grow more slowly than in recent years, but the wholesale and retail trade industries are expected to pick up the hiring pace a bit in 1988. In spite of brutal competition and a bleak outlook for sales growth in the near term, regional and national firms continue to invade the state, grabbing a share of one of the nation's most rapidly expanding markets. By 1989, job creation in the service sectors is expected to diminish as the rate of population growth declines.

POPULATION

Demographic factors favor slower migration to Arizona, since the segment of the population most likely to move – the 25-to-34 age group – will represent a smaller share of the nation's population. Fewer job opportunities also are an important factor reducing migration flows. Figure I illustrates the relationship between

job creation and population growth during the last two decades.

CONSTRUCTION

The EOC projects the current slump in home construction (and office construction as well) will extend to 1990, perhaps beyond. The aforementioned rise in interest rates, slower migration and high vacancy rates all will have an impact on the continued decline.

After a fall of nearly 34 percent in new housing units authorized last year, an additional decline of more than 17 percent is expected this year, followed by another drop of 15 percent in 1989. High vacancy rates will inhibit apartment construction, while slower employment growth and migration will hold back the single-family segment.

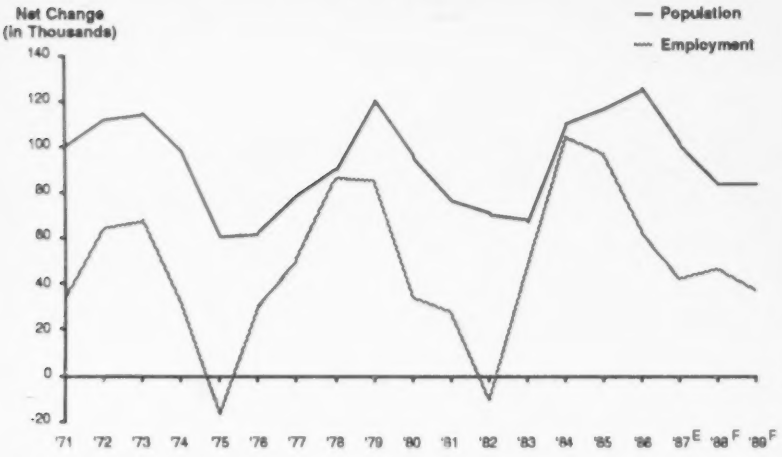
RETAIL SALES

Were it not for the unusual strength of restaurant and bar sales (see Figure II), Arizona's current state budget crisis would be even worse than it is. Dual-income families and the baby-boom "echo" have contributed to both the rising household incomes and the shrinking time for meal preparation that underlie this trend in Arizona and the United States. In Arizona, a vibrant tourism sector also makes a major contribution to this category.

Sales in other retail categories have not kept pace. The graph shows how pent-up demand for consumer durables fueled an enormous sales increase early in the recovery from the last recession. Later, demand was slaked, consumer debt mounted, and inflation waned, pushing nominal sales totals down sharply and leaving the state in its present predicament. Of course, other factors have contributed to the budget gap, but last year's sales increase of less than 5 percent wasn't even half the double-digit increases Arizona took for granted a few years ago.

The outlook suggests more of the same: sluggish growth matching or slightly exceeding the expected rate of inflation. If a plunge in consumer spending were to set off a recession, even the modest gains assumed by the forecast would be difficult to achieve.

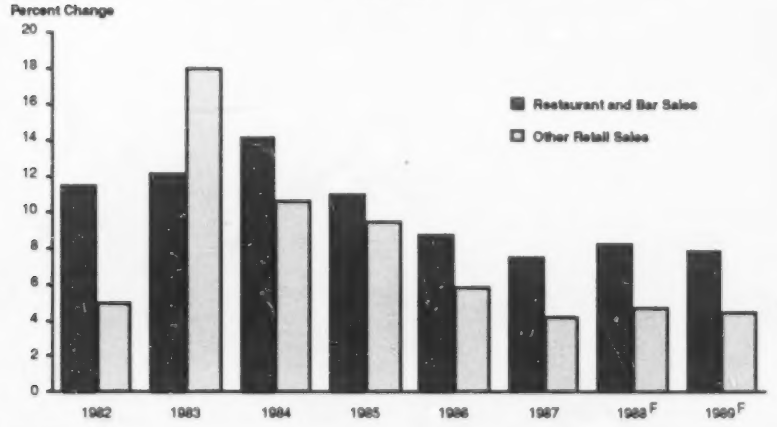
FIGURE I
ARIZONA EMPLOYMENT GROWTH AND POPULATION FLOWS
1971-1989, Annual Change (in Thousands)



E = Estimated; F = Forecast

Source: Arizona Department of Economic Security; Center for Business Research and Economic Outlook Center, College of Business, Arizona State University

FIGURE II
ARIZONA RESTAURANT AND BAR SALES
1982-1989



F = Forecast

Source: Economic Outlook Center, College of Business, Arizona State University

SUMMARY

Overall, the Arizona forecast is not a bad one. While the EOC does not predict a return to the splendid economic performance of the mid-1980s, it also does not expect a regional recession to strangle its growth prospects. In fact, Arizona should fare very well compared to most Western states, with California and Nevada the possible exceptions. A national recession doubtless would have a negative impact on Arizona, but construction – the most cycle-sensitive industry – already is in the doldrums, leaving the state relatively well-positioned to endure even a major business slump.

Current events make the task of carefully assessing the short-term outlook no less formidable than the intelligent analysis of Arizona's prospects many years from now. Future EOC forecasts may attempt to grapple with the critical, long-term issues. For now, however, the two-year outlook is for relatively slow growth – though still above average.

– Brian Cary
Senior Research Economist
Economic Outlook Center

Metro Phoenix Activity Expected To Continue Gradual Descent

Economic conditions in 1988 should be comparable to those in 1987, but metro Phoenix real estate activity should be down somewhat from 1987 levels. This outlook represents the consensus of four real estate groups in Maricopa County: homebuilders, financial services (banks, savings and loan associations, and mortgage bankers), real estate brokerages (commercial and residential), and "other" entities (appraisal, development, title insurance and property management firms, and government). They were surveyed during December 1987 and January 1988 by *Phoenix Metro* Magazine and the Arizona Real Estate Center.

The majority of respondents expect the various economic conditions to remain the same in 1988 as in 1987 (Table 1). Unlike the 1987 respondents, they tend to be more split on whether current conditions are better or worse, especially consumer confidence, the Phoenix-area economy, Phoenix employment, and business confidence. For the remaining conditions (retail sales, the national economy, and national employment), those surveyed tend to expect a worsening during 1988.

The consensus outlook is for stability – the expected levels do not differ greatly from current levels (Table 2). The relative closeness of the mode (most common value) to the median (value of the middle item in an ordered range) reflects a fairly consistent, narrow range of responses. The greatest variance is in predictions of the apartment vacancy rate, with forecasts ranging from 5-to-35 percent.

As with the economic expectations, the expressed level of confidence tends to be lower than a year ago. In fact, respondents have much less confidence than in previous surveys, with a higher level of responses in the "not confident" category. They expressed the following levels of confidence that certain key economic areas would improve: 51 percent for the local economy, 44 percent for the new-home market, 63 percent for their firm's activity, and 50 percent for the real estate market. Confidence that the economic policy of the federal government will lead to an improving economy continued to decline, from 36 percent in 1987 to only 34 percent in 1988. Further, only 32 percent of the respondents are confident that inflation will be lower in 1988.

The fundamental concern is that only 46 percent of respondents express confidence that mortgage interest rates will be lower in 1988. With reference to the new-home market, the most common response (38 percent) was that single-family permits would be in the range of 15,000-to-19,999 units, the expectation of the 1987 survey as well.

Respondents expect prices to remain unchanged during 1988. Table 2 presents the expected price changes in selected sectors of the market. The dominant pattern is one of no change (0.0 percent) or a slight increase over 1987. The main problem is that most respondents do not anticipate improvement in their firm's activity during 1988.

Respondents to the 1988 survey, not as optimistic as those who completed the 1987 survey, foresee a year of less activity. Given last year's relatively high level of market activity and the current economic uncertainty, expectations of somewhat lower levels of activity are, in fact, a call for another year of fairly good real estate activity.

– Jay Q. Butler

Dr. Butler is Associate Professor of Real Estate and Director of the Arizona Real Estate Center in the ASU College of Business.

TABLE 1
ECONOMIC OUTLOOK SCORES*

Economic Variable	1987	1988
Consumer confidence	44	48
Phoenix area economy	51	50
Retail sales	47	43
National economy	32	35
Phoenix employment	45	44
National employment	32	33
Business confidence	43	46

* Metropolitan Phoenix real estate industry representatives had three reply options to each survey question: Higher, Same or Lower. The score for each question was calculated by averaging the weighted replies. The weights: Higher - 100; Same - 50; Lower - 0. Scores may range from 0 to 100, with higher scores reflecting a greater degree of optimism. Scores near 50 indicate an expectation of no change; scores above 50 indicate expected improvement, and scores below 50 indicate expected worsening.

Source: Survey conducted by the Arizona Real Estate Center in the College of Business, Arizona State University; in cosponsorship with *Phoenix Metro* magazine, December 1987 and January 1988

TABLE 2
1987 AND 1988 CONSENSUS OUTLOOKS COMPARED TO ACTUAL 1987
Metropolitan Phoenix

	1987 Projection	Actual Year-end, 1987	1988 Projection
	Percentage Rate		
Variable			
Conventional mortgage rate	9.5	10.6	10.4
FHA mortgage rate	9.0	10.5	10.0
Prime interest rate	7.5	8.75	8.25
Commercial interest rate	10.0	N/A	11.0
Six-month Treasury Bill rate	6.0	6.4	7.0
Inflation rate (Metropolitan Phoenix)	3.0	4.1	4.0
Apartment vacancy rate	12.0	13.0	14.0
Unemployment rate (Metro Phoenix)	6.0	4.8	6.0
	Percent Change		
	1987 Projection	Actual 1987	1988 Projection
Resale-home prices	0.0	4.5	2.0
New-home prices	3.0	7.2	2.0
Land prices	5.0	N/A	0.0
Level of firm's activity	7.0	N/A	0.0
Resale-home market activity	0.0	0.0	0.0
Monthly rent for apartments	3.0	– 0.9	0.0

N/A = Not Available

Source: Center for Business Research and Arizona Real Estate Center, College of Business, Arizona State University

'87 Construction Activity Down Slightly, Still Strong

Given the great economic uncertainty of 1987, the Arizona construction industry, based on most measures of activity, had a good year. Total construction activity declined only 6 percent ($5.4 to $5.1 billion), while permit activity posted a 12-percent decrease (104,625 in 1986 to 92,242 permits). Evident in the different rates of decline is the activity's driving force: the development of several major projects in Maricopa County.

Total construction activity in Maricopa County declined only 2 percent ($3.9 to $3.8 billion), while its share of the state's total activity grew from 72 percent to 75 percent. With a 27-percent decrease ($817 to $596 million), the share of activity located within Pima County declined from 15 percent to 12 percent. While the remaining 13 counties accounted for only 13 percent of total Arizona construction, activity improved in several counties, including Mohave, Navajo, and Santa Cruz. The 12 leading areas of development activity for 1987, shown in Table 1, accounted for $4.4 billion or 87 percent of total statewide activity.

TABLE 1
REPORTING UNITS WITH GREATEST TOTAL VALUE OF BUILDING PERMITS
1987

Reporting Unit	Value (in millions)
Phoenix	$1,329
Scottsdale	841
Mesa	4[illegible]
Unincorporated Maricopa County	289
Unincorporated Pima County	269
Tucson	263
Chandler	229
Tempe	214
Glendale	170
Peoria	146
Gilbert	132
Unincorporated Yavapai County	73

Source: Center for Business Research, College of Business, Arizona State University

SECTORAL ACTIVITY

Residential

Maricopa County. Although 1987 began with very low interest rates (9.3 percent for 30-year conventional mortgages), they moved upward in March and were over 11 percent by October. After the stock market crash, interest rates declined, ending the year at 10.6 percent. Even though mortgage interest rates were changing throughout the year, the average interest rate for 1987 was the same as for 1986 (10.1 percent). This fact, combined with rising income and fairly stable home prices, allowed affordability to remain comparable to the 1986 level.

Single-family construction activity, however, decreased 24 percent (23,851 to 18,012 permits). The only cities to record increases over last year were Avondale (146 to 201 permits), Gilbert (912 to 1,069 permits), and Scottsdale (1,882 to 1,893 permits). While the number of permitted homes declined significantly, the dollar value of permits remained stable at $1.7 billion (see Table 3). This pattern demonstrated that the new home market was dominated by the move-up market (median value increased from $89,200 to $95,700). Further, new home construction activity was affected by a good resale market and continued growth in remodeling activity.

Rest of Arizona. The single-family sector in Pima County declined 9 percent (4,526 to 4,130 permits), with 72 percent of the permits issued in the unincorporated areas. Dollar value of new residential development also decreased 9 percent ($302 to $275 million).

Following the same pattern as in the metropolitan counties, single-family activity throughout the rest of Arizona decreased 9 percent (5,702 to 5,218 permits). Reporting areas that did register improvement over last year included unincorporated Santa Cruz (118 to 236 permits), Casa Grande (79 to 145 permits), and Lake Havasu City (436 to 565 permits).

Commercial

Maricopa County. While the multi-family and retail sectors declined appreciably from the levels of 1986, the development of several major office-building projects allowed the

TABLE 2
KEY SECTOR CONSTRUCTION ACTIVITY
1986 and 1987

	SINGLE FAMILY		COMMERCIAL						INDUSTRIAL	
			APARTMENTS[a]		OFFICE BUILDINGS[b]		RETAIL STORES[c]			
Maricopa County	Number of Permits	Dollar Value (000)	Number of Units	Dollar Value (000)	Number of Permits	Dollar Value (000)	Number of Permits	Dollar Value (000)	Number of Permits	Dollar Value (000)
1987	18,012	1,667,829	8,879	389,198	336	407,206	735	248,869	205	127,345
1986	23,851	1,706,112	17,519	491,175	294	249,817	1,214	335,461	339	145,686
Pima County										
1987	4,130	275,487	1,556	38,119	56	30,767	92	45,007	29	4,769
1986	4,526	302,790	6,295	159,300	104	59,594	121	46,609	29	5,900
Rest of Arizona										
1987	5,218	327,251	1,103	28,726	98	11,140	230	36,271	67	10,399
1986	5,702	314,564	1,835	39,587	155	17,894	273	41,704	109	13,601
Arizona Total										
1987	27,360	2,270,567	11,538	456,043	490	449,113	1,057	330,147	301	142,513
1986	34,079	2,323,465	25,649	690,062	553	327,305	1,608	423,774	477	165,188

[a] Five or more housing units
[b] Office, bank, medical and professional buildings
[c] Shopping centers and other mercantile buildings

Source: Center for Business Research, College of Business, Arizona State University

commercial sector to remain fairly stable ($1.3 billion in permits). The multifamily sector recorded a 49-percent drop (17,519 to 8,879 permits). Only Scottsdale reported an increase (1,370 to 2,473 units), while most cities registered significant decreases (see Table 4), exemplified by Glendale (3,271 to 393 units) and Mesa (3,659 to 1,436 units). However, the metropolitan vacancy rate continued to climb, from 11 to 13 percent.

Although much concern has been voiced about problems in the office-building sector, a record $407 million (336 permits) in new projects were authorized. This level of activity surpassed the previous record established in 1985 ($385 million, 454 permits). The primary areas of activity were Phoenix (125 permits, $313 million) and Scottsdale (21 permits, $35 million). Many of the permitted projects will not open until next year, when the market is expected to improve.

In response to growing concern about the retail sector, especially for the small centers, development activity declined from $335 million (1,214 permits) to $249 million (735 permits). In contrast to the addition of more than 5,000 hotel/motel rooms in 1986, only 2,900 rooms ($88 million) were permitted during 1987.

Rest of Arizona. Led by decreases in all major sectors, commercial development in Pima County fell 58 percent ($313 to $131 million). The greatest decline was evident in the multifamily sector, with only 1,556 units authorized ($38 million), in contrast to 6,295 units ($159 million) in 1986. Only the retail sector was near last year's level of activity (see Table 2).

Multifamily activity continued to decline (1,835 to 1,103 units) in the non-metropolitan counties, with nearly 50 percent of the units permitted in Coconino County. Activity in the office-building sector also diminished, while the retail sector recorded a slight increase over 1986.

Industrial

Maricopa County. Industrial development continued its downward slide, with only $127 million in new projects. Much of the decline occurred in Tempe ($44 to $13 million), while other cities recorded increases (Chandler: $18 to $26 million; Goodyear: $15,000 to $8 million).

Rest of Arizona. A similar pattern was evident throughout the state, with Pima County posting a 19 percent decrease in industrial activity. Mohave County recorded $4 million in new projects, followed by Coconino County with $1.6 million.

Other

This category includes a wide range of permitted activity, from churches to schools to swimming pools. For the last few years, the dominant sector has been educational facilities. With $168 million in new projects, this sector's activity surpassed industrial development in dollar value for 1987.

In Maricopa County, dollar value increased 7 percent, while permit activity declined 10 percent. Primary areas of development were educational facilities, religious buildings, and health care facilities. Led by continued authorization of new educational projects, this sector remained fairly stable in Pima County. The non-metropolitan counties followed a similar pattern, with areas of strong educational construction activity including Flagstaff, Payson, Casa Grande, and Prescott.

LOOKING AHEAD

Last year began with fairly optimistic expectations, based on declining interest rates and continuing economic growth. As the year progressed, however, the market environment worsened. Interest rates started upward, and concern about the economy mounted. Finally, interest rates began to decline, but the year ended with great concern.

In the first few months of 1988, interest rates have continued to decline, and economic conditions have remained fairly good. Basically, neither market forces nor economic conditions are strong enough to stimulate development activity beyond the levels of 1987.

Two fundamental factors should contribute to limiting construction activity during 1988. First, the strong migration pattern that has fueled growth over the last few years greatly diminished in the second half of 1987. The impact of the reduction in new arrivals should be most evident in the retail and multifamily sectors. Second, the level of activity in 1987 was largely supported by the construction of major projects, especially in Maricopa County. The new projects announced for 1988 are not expected to support 1987's level of activity.

These two factors, coupled with an uncertain economy, make it difficult to project construction activity. The key sector in 1988 should be single-family homes, which is expected to be below the levels of 1987 by 5-to-6 percent. Multifamily sector activity also should be down from 1987 levels but could be stronger in the non-metropolitan areas. Frequently, construction activity improves in the non-metropolitan areas in relation to the metropolitan areas because the former are overlooked for development until the latter are saturated. Then, developers recognize the stability, size and potential of the outlying areas. This pattern, especially evident in the retail sector, probably will become more prevalent in the multifamily sector as well.

There are no expectations for the market to expand during 1988 – many concerns remain about the economy and market conditions. Nor is there any reason for construction activity to decline appreciably. This outlook is based on the general assumption that the economy will still grow, but at a slower rate, and will not enter into recession. If this scenario holds, the construction industry should begin to improve during 1989. However, if the economy should decline further than currently expected, the market will follow suit, with the recovery postponed to a later date.

While the short-term outlook for the Arizona construction industry incorporates considerable concern and uncertainty, the long-term outlook is one of great potential. In working to achieve this potential, the economic base must continue to generate the new jobs and income that will attract new population as well as provide employment growth for current residents. This continued economic development is especially important to the non-metropolitan counties if a more balanced state economy is to be established. If the economy continues to develop, the state construction market will again be one of the most dynamic in the country during the 1990s.

– Jay Q. Butler

Dr. Butler is Associate Professor of Real Estate and Director of the Arizona Real Estate Center in the ASU College of Business.

TABLE 3
ARIZONA BUILDING PERMITS: ANNUAL REPORT
January – December 1987

	Residential*		Commercial		Industrial		Other		Total	
	Number of Permits	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*
APACHE COUNTY										
Eagar**	76	1,988	7	111	1	79	7	226	91	2,404
St. Johns	26	N/C	0	0	0	0	0	0	26	N/C
Springerville	17	589	7	719	0	0	4	11	28	1,319
Unincorporated	109	4,198	1	7	0	0	7	121	117	4,326
Total, Apache County	228	6,775	15	837	1	79	18	358	262	8,049
Percent Change, Previous Year	19	26	15	94	—	—	–45	–87	10	–5
COCHISE COUNTY										
Benson	43	336	3	80	0	0	14	68	60	484
Bisbee	52	416	7	271	0	0	16	64	75	751
Douglas	147	2,147	17	357	0	0	105	362	269	2,866
Huachuca City**	44	287	5	62	2	410	1	1	52	760
Sierra Vista	409	7,289	13	3,052	0	0	493	1,526	915	11,867
Tombstone**	35	236	1	27	0	0	48	22	84	285
Unincorporated	631	20,968	24	939	1	20	101	880	757	22,807
Willcox	57	195	14	363	0	0	43	382	114	940
Total, Cochise County	1,418	31,874	84	5,151	3	430	821	3,305	2,326	40,760
Percent Change, Previous Year	–5	–15	–12	–70	–80	–62	15	–67	0	–38
COCONINO COUNTY										
Flagstaff	503	27,288	122	22,158	5	1,496	262	8,638	892	59,580
Fredonia**	18	43	1	9	1	25	2	26	22	103
Page**	105	3,265	12	847	0	0	47	1,487	164	5,599
Unincorporated	1,061	28,892	70	1,810	2	126	222	4,004	1,355	34,832
Williams	25	1,033	4	621	0	0	55	128	84	1,782
Total, Coconino County	1,712	60,521	209	25,445	8	1,647	588	14,283	2,517	101,896
Percent Change, Previous Year	–7	8	140	33	–60	–70	11	–52	2	–8
GILA COUNTY										
Globe	22	399	14	298	0	0	45	205	81	902
Hayden	4	8	0	0	0	0	3	0	7	8
Miami**	5	193	0	0	0	0	3	4	8	197
Payson	425	10,148	40	3,112	0	0	73	3,977	538	17,235
Unincorporated	427	10,788	22	905	3	81	62	506	514	12,279
Total, Gila County	883	21,534	76	4,315	3	81	186	4,691	1,148	30,621
Percent Change, Previous Year	–12	0	90	52	–50	–13	17	37	–5	10
GRAHAM COUNTY										
Pima**	34	453	0	0	0	0	11	7	45	460
Safford	115	1,444	27	3,545	0	0	34	154	176	5,143
Thatcher	66	1,215	3	1,878	0	0	14	42	83	3,135
Unincorporated	243	3,832	14	698	3	68	19	594	279	5,192
Total, Graham County	458	6,944	44	6,121	3	68	78	797	583	13,930
Percent Change, Previous Year	21	11	52	730	200	2,187	–1	–78	19	31
GREENLEE COUNTY										
Clifton**	1	N/C	0	0	0	0	0	0	1	N/C
Duncan**	0	0	0	0	0	0	0	0	0	0
Unincorporated**	0	0	0	0	0	0	0	0	0	0
Total, Greenlee County	1	0	0	0	0	0	0	0	1	0
Percent Change, Previous Year	–93	—	—	—	—	—	—	—	–95	–
LA PAZ COUNTY										
Parker	68	306	4	536	1	474	26	134	99	1,450
Unincorporated**	285	2,848	26	1,816	2	216	76	176	389	5,058
Total, La Paz County	353	3,154	30	2,352	3	690	102	312	488	6,508
Percent Change, Previous Year	147	40	400	812	—	—	12	–13	103	127
MARICOPA COUNTY										
Avondale	324	12,849	26	1,339	1	50	209	1,091	560	15,329
Buckeye	37	75	3	177	0	0	7	71	47	323
Chandler	1,657	74,125	120	49,549	17	25,731	2,480	79,305	4,274	228,710
El Mirage	56	1,056	4	450	0	0	21	466	81	1,972
Gila Bend	13	35	5	14	0	0	12	27	30	76
Gilbert	1,216	95,089	24	10,587	11	6,880	771	19,061	2,022	131,617
Glendale	2,014	94,837	229	34,177	12	4,369	890	36,264	3,145	169,647
Goodyear**	26	595	2	37	3	8,103	67	701	98	9,436
Guadalupe**	7	71	0	0	0	0	0	0	7	71
Mesa	3,028	202,064	149	123,135	18	14,155	3,787	103,770	6,980	443,124
Paradise Valley	267	18,513	3	2,755	0	0	253	3,145	523	24,413
Peoria	1,904	107,715	168	12,353	4	508	845	25,748	2,721	146,324
Phoenix	7,578	433,896	589	616,568	112	51,189	7,399	227,249	15,778	1,328,882
Scottsdale	2,242	415,459	367	298,183	0	0	1,876	127,798	4,485	841,428
Surprise	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Tempe	1,038	68,852	564	97,076	24	13,211	981	34,471	2,607	213,610
Tolleson**	15	92	5	1,687	0	0	14	142	34	1,921
Unincorporated	7,004	227,343	336	31,343	3	2,905	5,111	27,810	12,454	289,201
Wickenburg	30	1,159	6	398	2	264	12	89	50	1,910
Youngtown**	30	330	1	4	0	0	6	98	37	432
Total, Maricopa County	28,486	1,754,156	2,701	1,279,832	205	127,345	24,541	687,094	55,933	3,848,426
Percent Change, Previous Year	–14	–2	–21	–4	–40	–13	–10	7	–13	–2

Arizona Building Permits: Annual Report (continued)

	Residential*		Commercial		Industrial		Other		Total	
	Number of Permits	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*
APACHE COUNTY										
Kingman City	300	6,032	54	5,358	0	0	58	1,627	412	13,017
Kingman Area	477	7,662	15	553	4	1,488	249	833	745	10,516
Lake Havasu City	735	41,481	26	4,406	9	1,476	226	2,287	996	49,652
Lake Havasu Area	79	1,177	2	153	0	0	64	168	145	1,498
Bullhead City	684	14,952	12	4,320	1	24	104	5,742	801	25,038
Mohave Valley South	579	11,858	20	1,612	0	0	363	1,309	962	14,779
Dolan Springs	193	2,981	1	6	0	0	93	246	287	3,233
Sacramento Valley	283	4,227	13	550	1	9	116	334	413	5,120
Mohave General	394	2,846	2	121	1	1,078	55	152	452	4,197
Total, Mohave County	3,724	93,216	145	17,061	16	4,055	1,328	12,698	5,213	127,050
Percent Change, Previous Year	–5	28	22	–31	14	132	–10	43	–5	17
NAVAJO COUNTY										
Holbrook	54	918	6	210	0	0	6	34	66	1,162
Pinetop–Lakeside	116	3,387	7	422	0	0	11	321	134	4,130
Show Low	96	2,528	14	1,224	1	18	72	263	183	4,033
Snowflake**	15	456	1	N/C	0	0	0	0	16	456
Taylor**	10	312	2	175	0	0	0	0	12	487
Unincorporated	475	16,573	6	1,068	0	0	5	126	486	17,765
Winslow**	40	503	3	29	0	0	22	70	65	602
Total, Navajo County	806	24,677	39	3,128	1	18	116	814	962	28,635
Percent Change, Previous Year	–5	16	–5	9	–86	–97	–68	–65	–22	6
PIMA COUNTY										
Marana	78	441	3	191	1	48	21	307	103	987
Oro Valley	213	15,798	9	1,365	0	0	155	3,798	377	20,961
South Tucson	34	220	18	2,502	2	148	21	197	75	3,167
Tucson	2,403	73,466	256	98,200	8	572	3,900	110,312	6,567	282,550
Unincorporated	4,371	206,854	66	29,025	18	4,001	2,344	48,906	6,799	288,786
Total, Pima County	7,099	296,779	352	131,383	29	4,769	6,441	163,520	13,921	596,451
Percent Change, Previous Year	–24	–9	–28	–58	0	–19	–1	–6	–15	–27
PINAL COUNTY										
Apache Junction	541	13,937	58	3,317	0	0	483	1,548	1,082	18,802
Casa Grande	206	10,169	59	12,196	0	0	54	4,232	319	26,597
Coolidge**	56	450	8	560	1	300	21	77	86	1,387
Eloy	64	822	9	633	4	462	33	676	110	2,593
Florence**	119	884	6	601	0	0	39	3,420	164	4,905
Kearny	26	30	1	83	0	0	10	20	37	113
Mammoth**	4	35	1	N/C	0	0	1	N/C	6	35
Superior**	6	4	1	1	0	0	2	N/C	9	5
Unincorporated**	169	6,630	11	738	2	487	44	2,096	226	9,951
Total, Pinal County	1,191	32,961	154	18,109	7	1,249	687	12,069	2,019	64,388
Percent Change, Previous Year	–29	–18	83	17	–53	–5	–45	14	–38	–5
SANTA CRUZ COUNTY										
Nogales	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Patagonia**	8	125	1	15	0	0	3	2	12	142
Unincorporated	629	13,587	15	992	2	220	38	465	684	15,264
Total, Santa Cruz County	637	13,712	16	1,007	2	220	41	467	696	15,406
Percent Change, Previous Year	205	95	167	111	100	54	37	–12	183	88
YAVAPAI COUNTY										
Chino Valley**	9	N/C	1	N/C	0	0	3	N/C	13	N/C
Clarkdale**	78	3,207	2	225	0	0	30	440	110	3,872
Cottonwood	114	2,498	11	1,567	5	348	86	820	216	5,233
Jerome**	1	N/C	0	0	0	0	0	0	1	N/C
Prescott	555	23,937	53	9,186	1	307	448	17,527	1,055	50,937
Prescott Valley	589	12,821	47	6,165	0	0	14	331	650	19,317
Unincorporated	1,572	58,456	42	3,453	3	193	421	11,158	2,038	73,260
Total, Yavapai County	2,918	100,919	156	20,576	9	848	1,000	30,276	4,083	152,619
Percent Change, Previous Year	–8	–14	–26	–13	–40	–37	–13	93	–11	–4
YUMA COUNTY										
Somerton**	22	617	0	0	0	0	18	19	38	636
Unincorporated**	849	22,218	70	5,452	10	1,005	458	17,254	1,387	45,929
Wellton**	1	1	0	0	0	0	0	0	1	1
Yuma	329	10,584	37	10,301	1	9	297	4,858	664	25,752
Total, Yuma County	1,201	33,420	107	15,753	11	1,014	771	22,131	2,090	72,318
Percent Change, Previous Year	–11	–15	1	–38	–21	–43	3	37	–6	–11
TOTAL, ARIZONA	51,115	2,480,641	4,128	1,531,088	301	142,513	36,698	962,815	92,242	5,107,057
Percent Change, Previous Year	–13	–2	–13	–14	–37	–14	–9	3	–12	–6

*Includes mobile homes

**Incomplete data: One or more months not available

N/R: No Report

N/C: This community does not collect dollar valuations.

Note: A dash indicates that a percent change could not be calculated because at least one period had no activity.

Source: Center for Business Research, College of Business, Arizona State University

TABLE 4
ARIZONA HOUSING UNITS AUTHORIZED: ANNUAL REPORT
January - December 1987

	One Family	Mobile Homes	Duplex	3-4 Family	5 or More	Total
APACHE COUNTY						
Eagar**	20	33	0	0	0	53
St. Johns	8	20	0	0	0	28
Springerville	6	3	0	0	0	9
Unincorporated	48	36	0	0	0	84
Total, Apache County	80	92	0	0	0	172
Percent Change, Previous Year	-11	64	—	—	—	18
COCHISE COUNTY						
Benson	5	20	0	0	0	25
Bisbee	1	1	2	0	5	9
Douglas	22	0	0	4	0	26
Huachuca City**	2	0	0	0	0	2
Sierra Vista	124	58	0	4	0	186
Tombstone**	1	8	0	0	0	9
Unincorporated	329	149	0	0	0	478
Willcox	1	22	0	0	0	23
Total, Cochise County	485	258	2	8	5	758
Percent Change, Previous Year	1	-30	-83	-81	-99	-44
COCONINO COUNTY						
Flagstaff	286	65	26	0	542	919
Fredonia**	1	14	0	0	0	15
Page**	23	31	0	4	0	58
Unincorporated	326	222	0	0	0	548
Williams	7	10	0	0	0	17
Total, Coconino County	643	342	26	4	542	1,557
Percent Change, Previous Year	-11	-17	-32	-43	293	18
GILA COUNTY						
Globe	5	0	0	0	0	5
Hayden	0	0	0	0	0	0
Miami**	3	0	0	0	0	3
Payson	107	81	0	0	6	194
Unincorporated	147	130	0	0	0	277
Total, Gila County	262	211	0	0	6	479
Percent Change, Previous Year	-12	-15	—	—	-79	-18
GRAHAM COUNTY						
Pima**	3	11	0	0	0	14
Safford	17	11	0	3	31	62
Thatcher	10	21	0	0	0	31
Unincorporated	23	148	0	0	0	171
Total, Graham County	53	191	0	3	31	278
Percent Change, Previous Year	6	9	—	0	—	22
GREENLEE COUNTY						
Clifton**	0	0	0	0	0	0
Duncan**	0	0	0	0	0	0
Unincorporated**	0	0	0	0	0	0
Total, Greenlee County	0	0	0	0	0	0
Percent Change, Previous Year	—	—	—	—	—	-
LA PAZ COUNTY						
Parker	3	4	0	0	0	7
Unincorporated**	11	126	0	0	0	137
Total, La Paz County	14	130	0	0	0	144
Percent Change, Previous Year	-69	282	—	—	—	82
MARICOPA COUNTY						
Avondale	201	75	0	3	0	279
Buckeye	1	31	0	0	0	32
Chandler	1,099	0	0	0	393	1,492
El Mirage	5	23	0	0	0	28
Gila Bend	1	0	0	0	0	1
Gilbert	1,069	1	58	0	30	1,158
Glendale	1,253	292	2	0	212	1,749
Goodyear**	8	11	0	0	0	19
Guadalupe**	2	0	2	0	0	4
Mesa	2,394	0	6	64	1,436	3,900
Paradise Valley	66	0	0	0	0	66
Peoria	1,502	10	6	0	12	1,530
Phoenix	4,496	13	2	58	3,299	7,868
Scottsdale	1,893	0	2	73	2,473	4,441
Surprise	N/R	N/R	N/R	N/R	N/R	N/R
Tempe	587	0	0	4	968	1,559
Tolleson**	0	0	0	0	0	0
Unincorporated	3,432	1,084	0	21	36	4,573
Wickenburg	17	1	2	4	0	24
Youngtown**	6	0	0	0	0	6
Total, Maricopa County	18,012	1,531	80	227	8,879	28,729
Percent Change, Previous Year	-24	-5	-77	-71	-49	-35
MOHAVE COUNTY						
Kingman City	141	88	0	0	158	387
Kingman Area	60	256	0	3	5	324
Lake Havasu City	585	0	8	8	46	627
Lake Havasu Area	8	46	0	0	0	54
Bullhead City	203	0	4	0	0	207
Mohave Valley South	97	271	0	0	0	368
Dolan Springs	31	81	0	0	0	112
Sacramento Valley	36	150	0	0	0	186
Mohave General	38	333	2	0	0	373
Total, Mohave County	1,179	1,225	14	11	209	2,638
Percent Change, Previous Year	27	6	40	-8	-33	9
NAVAJO COUNTY						
Holbrook	3	31	0	0	0	34
Pinetop-Lakeside	40	4	0	0	8	52
Show Low	15	45	0	0	0	60
Snowflake**	4	8	0	0	0	12
Taylor**	6	0	0	4	0	10
Unincorporated	259	54	0	0	0	313
Winslow**	5	7	0	0	0	12
Total, Navajo County	332	149	0	4	8	493
Percent Change, Previous Year	-11	43	—	—	-75	-4
PIMA COUNTY						
Marana	6	59	0	0	0	65
Oro Valley	197	0	0	0	0	197
South Tucson	5	0	0	0	0	5
Tucson	958	0	78	48	1,060	2,144
Unincorporated	2,964	268	0	0	496	3,728
Total, Pima County	4,130	327	78	48	1,556	6,139
Percent Change, Previous Year	-9	-79	-20	4	-76	-62
PINAL COUNTY						
Apache Junction	72	371	0	12	48	503
Casa Grande	145	0	0	0	0	145
Coolidge**	3	20	0	0	0	23
Eloy	5	26	0	3	0	34
Florence**	1	27	0	8	18	54
Kearny	1	6	0	0	0	7
Mammoth**	1	0	0	0	0	1
Superior**	0	0	0	0	0	0
Unincorporated**	112	0	0	4	0	116
Total, Pinal County	340	450	0	27	66	883
Percent Change, Previous Year	-36	-52	—	-25	5	-45
SANTA CRUZ COUNTY						
Nogales	N/R	N/R	N/R	N/R	N/R	N/R
Patagonia**	1	6	0	0	0	7
Unincorporated	236	376	4	15	6	637
Total, Santa Cruz County	237	382	4	15	6	644
Percent Change, Previous Year	101	649	-75	275	—	241
YAVAPAI COUNTY						
Chino Valley**	2	4	0	0	0	6
Clarkdale**	25	32	0	3	0	60
Cottonwood	32	15	4	3	31	85
Jerome**	0	0	0	0	0	0
Prescott	286	47	2	101	112	548
Prescott Valley	179	163	20	19	13	394
Unincorporated	740	373	6	15	26	1,160
Total, Yavapai County	1,264	634	32	141	182	2,253
Percent Change, Previous Year	-24	3	-41	19	-46	-19
YUMA COUNTY						
Somerton**	13	1	0	0	0	14
Unincorporated**	174	422	0	0	48	644
Welton**	0	0	0	0	0	0
Yuma	142	22	0	12	0	176
Total, Yuma County	329	445	0	12	48	834
Percent Change, Previous Year	-16	-6	—	-8	-81	-42
TOTAL, ARIZONA	27,380	6,387	236	500	11,538	46,001
Percent Change, Previous Year	-23	-19	-62	-54	-56	-34

**Incomplete data: One or more months not available

N/R: No Report

Note: A dash indicates that a percent change could not be calculated because at least one period had no activity

Source: Center for Business Research, College of Business, Arizona State University

'87 Home Sales, Appreciation, Affordability Vary Throughout Valley

HOME SALES

Home sales declined during 1987 in all but four of the 14 larger cities in the Phoenix metropolitan area, producing a 7-percent drop in sales for the year. Chandler, Tempe and Peoria took the biggest losses (see Table 1).

Of those cities where more homes sold during 1987, Sun City West's sales jumped the most, followed by Fountain Hills, Paradise Valley, and Gilbert. Only Fountain Hills ranked in the top three growth-cities in 1985 and 1986 as well.

The median sales price of all homes sold in the Valley during 1987 rose 3 percent. Only in Gilbert did prices climb considerably more (37 percent), due primarily to activity in planned area developments. Paradise Valley followed, with a 10-percent increase.

Paradise Valley's median price was considerably higher than that of any other city ($325,000), followed by Carefree/Cave Creek and Scottsdale. Prices were lowest in Sun City and Phoenix.

HOME APPRECIATION

Only Sun City West's appreciation rate of 9 percent was much greater than the metro median of 2.4 percent; this city was also the only one to outperform the Valley inflation rate of 4.1 percent. Homes in Chandler, Mesa, Peoria and Scottsdale appreciated somewhat more than the overall median.

Areas with higher-priced homes and/or a larger proportion of new homes typically enjoy higher appreciation rates.

HOME AFFORDABILITY

Affordability of new single-family homes was highest in Glendale, the only city where a median-priced new home was affordable to the median-income household.

Resale-home affordability was highest in Glendale and Phoenix; median-priced resale homes were also affordable to the median-income household in Tempe and Mesa.

BREAKDOWN, BY CITY

Chandler/Gilbert

Home sales in Chandler fell 11 percent during 1987. New single-family homes accounted for almost all of the decline; sales of townhouses/condominiums increased 21 percent during the year.

Prices accelerated more than 7 percent on new homes of both housing types, but resale prices rose only 2 percent.

The number of units sold in Gilbert decreased slightly in all categories except new single-family homes. The large increase in this category accounted for the city's 3-percent sales expansion.

Prices of both single-family homes and townhomes rose during the year, a result of newer, more expensive homes in Gilbert, primarily in planned area developments.

Homes in both Chandler and Gilbert appeared to appreciate faster than the rate for the entire metro area, but the small number of sales in Gilbert reduced the reliability of its rate. Chandler's rate of 3.3 percent was higher than the Valley's 2.4 percent rate but less than the inflation rate.

Glendale/Peoria

The most striking characteristic of the Glendale real estate market is its home affordability; both new and resale homes are more affordable than in any other large Valley city. Glendale's median sales price for both new and resale homes was lower than the Valley median in 1987, while its median income was 9 percent higher.

Price changes in Glendale were negligible for both single-family homes and townhomes; the number of sales fell 10 percent, due to de-

TABLE 1
1987 HOME SALES, APPRECIATION AND AFFORDABILITY
Metropolitan Phoenix, By City

City	Number of Sales	Percent Change from 1986	Median Sales Price	Percent Change from 1986	Median Appreciation Rate	Resale Home Affordability Index[2]	New Home Affordability Index[2]
Carefree/Cave Creek	110	-7	140,500	14	*	NA	NA
Chandler	3,830	-11	87,350	2	3.3%	NA	NA
Fountain Hills	620	24	95,000	2	*	NA	NA
Gilbert	260	4	92,175	37	*	NA	NA
Glendale	2,900	-9	76,525	-1	2.1	124	111
Mesa	9,650	-1	78,000	3	3.1	113	98
Paradise Valley	380	9	325,000	10	*	NA	NA
Peoria	2,180	-15	78,950	1	2.9	NA	NA
Phoenix	22,890	-8	73,500	2	2.1	123	92
Scottsdale	5,170	-1	114,900	6	2.9	93	83
Sun City	1,600	-6	70,000	1	2.1	NA	NA
Sun City West	1,550	35	96,500	4	9.0	NA	NA
Tempe	2,930	-13	80,725	4	2.1	118	85
MARICOPA CO. TOTAL[1]	59,250	-7	80,050	3	2.4	112	95

[1] Total does not add to sum of cities due to exclusion of cities with less than 100 sales and of unincorporated areas.

[2] An affordability index of 100 or more indicates that a median-income household could qualify for a median-priced home, assuming a conventional, fixed-rate, 30-year loan and a 15-percent downpayment.

* Insufficient number of sales

NA = Income estimates not available

Source: Arizona Real Estate Center, College of Business, Arizona State University

clining sales of both new and resale single-family homes.

Glendale's 2.1 percent appreciation rate tied with three other cities as the lowest rate in the Valley, though not significantly below the overall 2.4 percent. Low rates would be expected due to the low home prices in this area, as well as the low proportion of new homes.

Peoria is notable for its large percentage of new homes; even though the proportion fell during 1987, it was second only to Sun City West. Sales dropped 15 percent during the year, while prices rose only 1 percent.

Peoria's 2.9-percent rate of appreciation placed it about mid-way in the rankings of larger Valley cities, above the metro median.

Mesa

Stable overall home sales and prices, coupled with slightly higher-than-average levels of appreciation and affordability, characterize the real estate market in Mesa. The total number of sales in 1987 declined only 1 percent. Single-family-home sales fell 4 percent, while townhome sales surged 9 percent. Prices rose 3 percent, due entirely to increases in single-family homes.

At 3.1 percent, Mesa's rate of appreciation was third-highest in the Valley, behind Sun City West and Chandler, but it was less than the Valley's inflation rate. Mesa had the second-highest level of new-home affordability; resale-home affordability was close to the Valley level.

Phoenix

High levels of resale-home affordability, low appreciation rates, and declining home sales identify the Phoenix real estate market.

Its 2.1-percent rate of appreciation tied for last place among the Valley's large cities. Appreciation was lowest in the older and/or less expensive areas of Maryvale, Christown and Metrocenter. The areas of north-central Phoenix, east Camelback, downtown and midtown Phoenix all had rates in excess of the Valley median, though no area of Phoenix had an appreciation rate as high as the Valley inflation rate.

Affordability of resale single-family homes was much higher in Phoenix and Glendale than in any other large Valley city. The median income in Phoenix was slightly under the overall Valley level, but home prices were significantly lower than in any other city.

Single-family home sales dropped 8 percent, and townhome sales declined 4 percent. The median price of single-family homes rose 3 percent, while townhome prices fell 5 percent.

Scottsdale, Paradise Valley, Fountain Hills

High home prices and appreciation rates as well as low levels of affordability are features of the real estate market in Scottsdale, Paradise Valley, and Fountain Hills.

Homes in all three of these areas appear to appreciate faster than the 2.4 percent metro rate, primarily due to the large proportion of new and/or expensive homes. Scottsdale's rate of 2.9 percent in 1987 was slightly higher; Fountain Hills and Paradise Valley appeared to have the second and third-highest rates in the Valley, behind Sun City West. However, the small number of sales in Fountain Hills and Paradise Valley reduces confidence in the exact rate of increase.

The number of Fountain Hills homes sold in 1987 soared 24 percent over the 1986 total; Paradise Valley's sales climbed 9 percent, and the number of Scottsdale home sales remained relatively constant. The median price increased only 2 percent in Fountain Hills, rose 6 percent in Scottsdale, and jumped 10 percent in Paradise Valley. The median home price in Paradise Valley – $325,000 – was almost 2.5 times higher than next-highest Carefree/Cave Creek.

Affordability of homes in Scottsdale is the lowest of all Valley cities for which income estimates can be obtained. The low level results from high home prices that more than offset the residents' higher incomes.

Sun City

Declining home sales and appreciation combine with stable home prices to describe the housing market in Sun City.

The decline in single-family home sales accounted for 1987's 6-percent drop in sales, in line with the rate of decrease for the Valley. Home prices increased only 1 percent, less than the rate for all cities but Glendale and equal to Peoria's rate.

Even though the 2.1-percent appreciation rate in Sun City was only slightly lower than the overall rate for the Valley, a downward trend is evident. This area has deteriorated from one of the highest appreciation areas in the Valley to the lowest. Contributing factors are its very low proportion of new homes, as well as its primarily lower-priced homes.

Sun City West

Home sales boomed and appreciation soared in Sun City West during 1987, while the median home price increased only moderately.

The 9-percent rate of appreciation was by far the highest in the Valley, considerably higher than the 2.4-percent Valley median. The city had the greatest proportion of homes appreciating 8 percent or more annually and the smallest percentage of homes that lost value from one purchase to the next. Sun City West's claim to the highest proportion of new homes in the Valley, combined with the distinctive character of the area, explains most of the high appreciation rate.

Home sales increased 35 percent in 1987 over 1986, significantly more than any other city. Sun City West was also the only city where sales rose more in 1987 than they did in the prior year.

Tempe

The number of Tempe homes sold dropped 13 percent; single-family-home sales declined more than townhome sales. Prices rose 4 percent, due entirely to price increases in single-family homes

Appreciation in Tempe tied for the lowest rate in the Valley, slightly below the metro median. The low proportion of new homes in Tempe probably contributed to the low rate.

Affordability of resale single-family homes was higher than the metro median, while new homes were less affordable. Tempe's median income, second only to Scottsdale's, was offset by high new-home prices, reducing affordability to just above the level for Scottsdale.

– **Sharla Kivett,** *Research Analyst Arizona Real Estate Center*

Complete Reports Available

This article summarizes more detailed reports on the appreciation and affordability of homes in the Phoenix area during the 1980s. Copies of the complete reports, which include a number of tables with textual interpretation, as well as analysis by city and district, may be obtained by calling or writing the Arizona Real Estate Center, College of Business, Arizona State University, Tempe, AZ 85287; (602) 965-5440.

Economic Difficulties Continue in Many Rural Areas

Wide disparities in economic growth, prosperity, and living standards exist between Arizona's metropolitan areas, particularly Phoenix, and the state's rural counties. A series of articles printed in *Arizona Business* since the beginning of 1987 have discussed various aspects of this topic:

- January 1987: population and employment growth
- March 1987: standard of living
- June 1987: gross county products (GCP)
- July 1987: industrial comparison report
- August 1987: urban growth
- September 1987: migration
- March 1988: coincident economic indexes

Articles in upcoming issues will again highlight population growth and GCP and will update information on the other topics.

This article discusses employment growth and unemployment and analyzes a new set of data released by the U.S. Department of Commerce. At first glance, the average wage per job supports a more positive view of rural conditions in Arizona, but further scrutiny reveals the weakened economic vitality of many rural areas.

AVERAGE WAGE

The 1986 average wage per job (wage and salary disbursements divided by wage and salary employment) in rural Arizona exceeded by 5 percent the average of U.S. non-metropolitan areas. In contrast, the average wage in Arizona's urban areas fell short of the nationwide average for metro areas. The highest average wage in Arizona was found not in the Phoenix area but in a rural county. Greenlee County led the state, at $23,750, followed by Maricopa County ($19,441). At $17,561, the Tucson area's average wage ranked fifth, also behind those of Gila and Navajo Counties.

Relatively high rural wages historically have resulted from limited economic bases centered on a high-paying industry, typically mining. Though still 22 percent higher than that of the Phoenix area, Greenlee's average wage declined in 1986. It increased only 10 percent between 1980 and 1986, far less than the 33-percent inflation rate. In contrast, the average wage in Maricopa County rose 5 percent in 1986; the gain between 1980 and 1986 totaled nearly 40 percent.

Slow average-wage growth prevailed throughout non-urban Arizona. Between 1980 and 1986, not a single rural county recorded an increase in the average wage that kept up with the inflation rate, the advance in the U.S. non-metro average, or the gain in Arizona's metro areas. The average wage in five counties had fallen below the national figure for non-metro areas; 10 years earlier, only Graham County was lower. Rural Arizona's average wage in 1975 was only 3 percent less than in the metro areas; by 1986, it was 15 percent lower.

Further, preliminary research on the cost of living suggests that rural living costs in Arizona are not lower than in the metro areas; in some cases, they are much higher. Low wages and high costs translate into a very low standard of living.

EMPLOYMENT

Unfortunately, slow growth in wages is not the only problem facing non-metro Arizona. Rural employment gains between 1980 and 1987 totaled only 18 percent, far short of the 32-percent increase in Pima County or the 44-percent rise in Maricopa County. Yavapai and Mohave were the only non-urban counties to exceed Pima's figure; none matched Maricopa's gain. Employment declined in Apache, Greenlee and Gila Counties.

Employment gains varied widely by industry. In all geographic areas, services and the finance, insurance and real estate industry provided the greatest percent increase in jobs. Government employment growth was slow in all areas. Except in manufacturing and the transportation, communication and public utilities industry, job growth was fastest in the Phoenix area and slowest in rural Arizona.

Though Phoenix area employment continued to rise more rapidly than Tucson area employment in 1987 (in all major industries), the percent change in the rural area led the state for the second successive year. As indicated by the wide differential in the seven-year change, modest rural improvement during 1986-87 barely began to offset the weak conditions that prevailed during the first half of the decade.

While rural Arizona's employment gains outpaced the nation's between 1980 and 1986, this positive aspect fades in stature when compared to a high and rising unemployment rate.

UNEMPLOYMENT

The unemployment rate shot up during the 1980s in the non-urban counties; 10 of the 13 counties suffered from a double-digit rate in 1986. In contrast, the unemployment rate in the Phoenix and Tucson areas declined, to less than 6 percent in 1986. Though the rate decreased statewide in 1987, the annual average remained in excess of 10 percent in seven rural counties. No rural county had a rate as low as the near-5-percent rate measured in the urban areas. Overall, the rural rate of almost 11 percent was more than double the metro rate. Further, the unemployment rate was not lower than the national average in any rural county.

CONCLUSION

On the positive side, Arizona's rural areas are growing faster – both in population and jobs – than the national average. Conditions have improved since 1985. Further, the average wage is higher than in the average U.S. non-metro area.

However, the average wage in rural Arizona is lower and rising less rapidly than in the metro areas; it is also growing more slowly than in non-metro areas nationwide. Rural employment growth remains slower than in the metro areas, and the unemployment rate is higher than in Phoenix, Tucson, or the nation as a whole.

Thus, except for those who advocate growth and disregard other issues, the bottom line is that numerous Arizona rural areas are hurting. Many residents are unemployed, and many of those with jobs endure a low standard of living.

– **Tom R. Rex**
Research Manager

Rural Coincident Index Outpaces Metro Indexes in December

Rural Arizona's economy expanded more in December than the economies of the state's two metropolitan areas, continuing the pattern of the four previous months, when gains of 0.5 to 1.0 percent were recorded in the coincident economic index for non-urban Arizona. The index rose 0.7 percent in December to a record-high 131.0 (1982 = 100).

After a sharp decline in November, metro Phoenix's index climbed 0.2 percent to 140.9. The index for the Tucson metropolitan area was unchanged at 137.0, following three straight strong advances.

Varying employment gains were responsible for most of the differential in growth of the indexes during the last five months of 1987. Strong employment increases were recorded in rural Arizona, but job creation in Pima County was modest; employment was stagnant in Maricopa County.

In December, little change was recorded in the retail sales and unemployment rate components of the coincident indexes. In the Phoenix area, the commercial-building-permit valuation rose modestly from November's very low level, but employment declined slightly. Though employment rose in the Tucson area, building permits tumbled, offsetting November's gain. Employment grew strongly in the rural area, while building permits were flat.

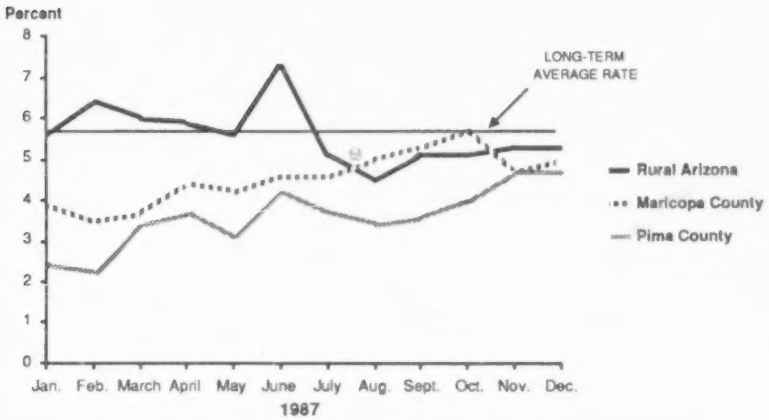
The December figures reflect revisions to 1987 monthly employment and unemployment data reported by the Arizona Department of Economic Security. With the updated information, the coincident indexes show that economic growth was faster early and late in the year but slower during the summer than originally reported. Overall, the economies of the Phoenix area and non-urban Arizona were healthier than first thought, but the net effect for the Tucson area was nil.

For the entire year, subpar growth afflicted all areas. However, the economies of Pima County and non-urban Arizona improved late in the year from weakness experienced during the summer (see Figure I). In contrast, Maricopa County's economy languished late in the year after showing strength during the summer.

The composite statewide measure rose 0.2 percent in December to a new high of 138.4.

– **Tom R. Rex**
Research Manager

FIGURE I
COINCIDENT ECONOMIC INDEXES
Year-to-Year Percent Changes



Source: Center for Business Research, College of Business, Arizona State University

February Purchasing Indicators Register Solid Gains

The Arizona economy moved to new, higher performance levels in February. All of the purchasing indicators again were strongly positive (see Table 1), with solid increases registered for new orders received, production, and employment. Inventory gains added to the upward momentum, and lead times stretched further. The only negative note was another jump in price levels.

The upbeat tone continues, and the October stock market meltdown seems to be well behind us. The year has started with strong back-to-back months. As exports increase, strengthening manufacturing, they will couple with healthy consumer spending to produce further upward momentum for the Arizona economy, probably throughout 1988. However, inflation is heating up and could become a serious impediment to the orderly continuation of economic growth.

– **Harold Fearon**

TABLE 1
FEBRUARY PURCHASING SURVEY

	Percent of Purchasing Managers Indicating Each Response (February compared to January)		
Key Indicators	*Higher*	*Same*	*Lower*
Prices paid for major commodities	53	43	4
Delivery time from vendors	45	49	6
Purchased materials inventory level	37	50	13
New orders received	40	41	19
Production	33	50	17
Employment	18	74	8
Purchases	40	40	20

Source: Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona

Dr. Fearon is the National Association of Purchasing Management Professor in the ASU College of Business.

Arizona Leading Index Stages Mild Comeback in January

The Arizona Index of Leading Economic Indicators increased in January to 110.1, a mild comeback from December's 109.8.

The index is based on 10 statistical economic indicators and is designed to predict economic activity up to six months in the future. Six of the 10 components rose in December.

For the second month in a row, the greatest negative influence came from a seasonally adjusted decrease in the value of residential building permits. Other components pulling the index down included new orders, employment, and sensitive materials prices.

Providing the biggest boost to the index were four components that had exerted a negative influence on December's index value but turned positive in January: delivery time, inventories, production, and unemployment insurance claims. The average work week and money supply continued to have a positive impact.

TABLE 1
NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

	Net Contribution*			
	Oct.	*Nov.*	*Dec.*	*Jan.*
Delivery Time*	–.01	–.02	–.07	.08
Inventory Levels*	–.06	.07	–.11	.06
New Orders*	–.01	.07	–.12	–.06
Production*	.02	–.07	–.04	.05
Employment*	.07	–.01	.00	–.01
Residential Building Permits	–.16	.13	–.45	–.23
Unemployment Insurance Claims	.17	–.20	–.07	.20
Average Workweek, Manufacturing	.09	–.07	.05	.05
Money Supply	.09	–.16	.02	.19
Change in Sensitive Materials Prices	.00	–.07	–.13	–.11
OVERALL INDEX CHANGE (%)	.22	–.33	–.93	.23

*The net contribution of each component is calculated by multiplying the monthly percent change in its index by its relative importance.

*Based on indicators from the purchasing management associations of Arizona and southern Arizona.

Source: Economic Outlook Center, College of Business, Arizona State University

Three series that contribute values to the leading index will be revised during the next month: the money supply, sensitive prices and the average work week in manufacturing. These revisions will also allow the calculation of new seasonal adjustments.

– **Tracy L. Clark,** *Economist*
Economic Outlook Center

New Business Start-ups Stumble, Recover in 1987

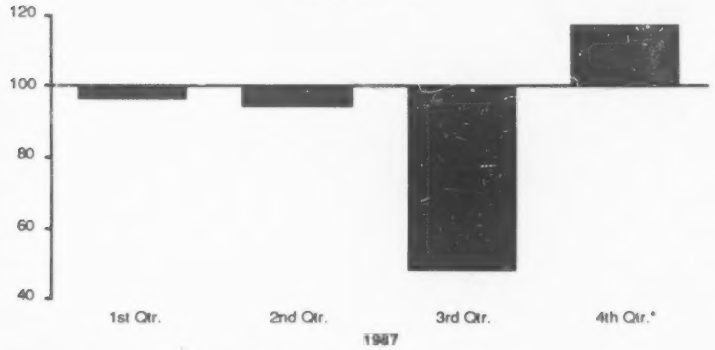
The number of new businesses started by metropolitan Phoenix entrepreneurs plunged during third quarter 1987. The quarterly Metro Phoenix New Business Index fell to 48 (1986 = 100) as only 397 new businesses opened during the period. However, incomplete data for fourth quarter 1987 show a surge of start-ups, pushing the preliminary index to 117. (Final figures will be available in July.)

The index measures new business start-ups, excluding franchises, branches, and relocations. Data are obtained through a cooperative agreement between the *Arizona New Business Review* and the Center for Business Research.

Start-ups during the third quarter slowed markedly in wholesale trade, finance-insurance-real estate, and services. Only 129 new service firms opened, compared to 309 firms during the same period of 1986. The service industry appears to have recovered after a slow summer. Preliminary fourth-quarter data indicate 400 service firms started, compared to 291 for fourth quarter 1986.

Through the third quarter of 1986, 2,830 new business start-ups were recorded in metro Phoenix. Data on 1987 start-ups show the pace down 18 percent, to 2,323 new businesses for the first three quarters.

FIGURE I
METROPOLITAN PHOENIX NEW BUSINESS INDEX
(1986 = 100)



*Preliminary estimate, based on incomplete data

Source: Arizona New Business Review and the Center for Business Research, College of Business, Arizona State University

– **Lee R. McPheters**
– **Yolanda Strozier**

Dr. McPheters is Professor of Economics and Director of the Economic Outlook Center. Ms. Strozier is a senior Economics major.

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT (In Billions of Dollars, at Annual Rate)						
Arizona - Current Dollars	3rd Qtr.	57.463	1.8	9.5	NA	NA
Arizona - 1982 Dollars	3rd Qtr.	48.334	0.9	5.4	NA	NA
COINCIDENT ECONOMIC INDEXES (1982 = 100)						
Arizona	Dec.	138.4	0.2	4.9	NA	NA
Metropolitan Phoenix	Dec.	140.9	0.1	5.0	NA	NA
Metropolitan Tucson	Dec.	137.0	0.0	4.7	NA	NA
Non-urban Arizona	Dec.	131.0	0.8	5.3	NA	NA
CONSUMER PRICE INDEX (1982-84 = 100)						
Metropolitan Phoenix	4th Qtr.	116.6	0.4	4.7	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	Jan.	110.1	0.3	-0.4	NA	NA
BUILDING PERMITS (Total Dollar Value in Thousands)						
Maricopa County	Jan.	182,008	-10	-39	182,008	-39
Pima County	Jan.	26,360	-42	-28	26,360	-28
Balance of State	Jan.	30,414	-32	-27	30,414	-27
Arizona	Jan.	238,782	-18	-37	238,782	-37
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	Jan.	1,205	-41	-56	1,205	-56
Pima County	Jan.	235	-5	-63	235	-63
Balance of State	Jan.	788	-20	-13	788	-13
Arizona	Jan.	2,228	-32	-48	2,228	-48
HOME SALES						
Maricopa County - Number	Jan.	3,380	4.3	-28.7	3,380	-28.7
Maricopa County - Median Price	Jan.	81,000	-2.7	3.6	81,000	3.6
Maricopa County - Number	Feb.	3,790	12	-1	7,170	-16
Maricopa County - Median Price	Feb.	80,000	-1.2	0.6	80,250	1.6
HOUSING AFFORDABILITY INDEXES						
Metropolitan Phoenix - New Homes	4th Qtr.	87	-5.4	-12.1	NA	NA
Metropolitan Phoenix - Resale Homes	4th Qtr.	106	-2.8	-7.8	NA	NA
MORTGAGE INTEREST RATES (Conventional, 30-year, Fixed-rate)						
Maricopa County	Feb.	9.9	-4.8	11.2	NA	NA
POPULATION ESTIMATES (In Thousands)						
Maricopa County	4th Qtr.	1,993	0.5	2.7	NA	NA
Arizona	4th Qtr.	3,443	0.5	2.4	NA	NA
ELECTRICAL POWER SALES (In Millions of Kilowatt Hours)						
Arizona	Jan.	3,333	1.8	7.1	3,333	7.1

NA = Not Applicable

Source: Center for Business Research, College of Business, Arizona State University

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John Kraft, Dean
Timothy D. Hogan, Center Director
Mary Wery Garcia, Editor
James Dodson, Editorial Assistant
Sandra Palais, Computer Specialist

SRI Acquisitions
Congressional Info Service
4520 East-West Highway
Bethesda MD 20814